KOLODNIKOV, V., polkovnik, voyennyy letchik pervogo klassa;
GOLUBKOV, V., podpolkovnik, voyennyy letchik pervogo klassa

Co-pilots should have a potentiality for development. Av. i kosm. 46 no.5:38-40 My '64. (MIRA 17:7)

KOLODNYY, D. P.

PA 245T96

USSR/Physics - Radiation 11 Oct 52

"Computation of Coefficient of Irradiation by the Method of Integration With Respect to Directions," D. P. Kolodnyy

"Dok Ak Nauk SSSR" Vol 86, No 5, pp 937-940

Attempts to facilitate integration process of subject computation by reversing order of integration in specified formulas. Concludes with formula similar to that by G. Polyak (cf. "Iz Energet Inst, Akad Nauk SSSR" 3, (1935)) using other means. Submitted by Acad M. V. Kirpichev 21 Jul 52.

245T96

SOV/124-58-2-1525

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 4 (USSR)

AUTHOR: Kolodnyy, D. P.

TITLE: The Available Work in a Thermodynamic Process (Raspolagayemaya rabota v termodinamicheskom protsesse)

PERIODICAL: Sb. nauchno-issled. rabot. Tashkentsk. tekstil'n. in-t, 1956, Nr 3, pp 40-54

ABSTRACT: The article gives an elementary presentation of problems connected with the concept of the available work. The available work is defined as the sum of the work of a process and the work connected with filling and emptying of a system. Detailed description is given for the elementary processes, and, in particular, the polytropic process is reviewed from a new viewpoint. Discussion is presented for a particular case when the available work is zero. In all cases particular attention is given to the applicability of the relationships received for the conditions of irreversibility. Connection is noted between the available work and the characteristic functions (enthalpy, free enthalpy). The article presents a new form of the equation of the first law which connects the amount of heat and the enthalpy in

Card 1/2

The Available Work in a Thermodynamic Process

terms of the available work. A new definition of the enthalpy is offered on the basis of the concept of the available work. The article proves the advantage of this definition when compared with the definitions accepted at present. In this proof, however, in the opinion of the reviewer the author fails to note the most correct definition of enthalpy as the energy of an expanded system. Bibliography: 8 references.

A. A. Gukhman

Card 2/2

SOV/96-58-8-22/22

AUTHOR: Kolodnyy, D.P. (Candidate of Technical Science)

TITLE: Correction of two formulae in the book "Thermal Design of Boiler Sets" (Standard Method) Gosenergoizdat, 1957 (Utochneniye dvukh formul v knige 'Teplovoy raschet kotel'nykh agregatov' (Normativnyy metod). Gosenergoizdat, 1957.

PERIODICAL: Teploenergetika, 1958, Nr 8, p 96 (USSR)

ABSTRACT: In using the above book as an aid to the thermal design of small boilers, it has been found that two formulae are inaccurate and give a wrong result in the thermal balance of the boiler. The nature of the error is explained and the correct formulae are given.

There are no figures, no literature references.

1. Boilers--Design 2. Thermodynamcis--Applications

Card 1/1

SOV/143-58-10-16/24

24(3)

AUTHOR: Kolodnyy, D.P., Docent

TITLE: The Specific Irradiation Factor of Two Spheres of Identical Diameter

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Energetika, 1958, Nr 10, pp 126-129 (USSR)

ABSTRACT: The specific irradiation factor indicates the amount of radiation energy, emitted by one isothermic black surface (F_1), falling onto a second surface (F_2), separated from the first by a diathermic medium. As it is known, the factor depends only on the geometric parameters determining the shape, the dimensions and the position of the surfaces in regard to each other. In case of two spheres of equal diameter, the geometric parameters are determined by two magnitudes, the diameter (D) of the spheres and the distance (L) between their centers. The specific irradiation factor (φ_{12}) depends only on the ratio $k = \frac{D}{L}$. The author then considers the case of two non-intersecting

Card 1/4

SOV/143-58-10-16/24

The Specific Irradiation Factor of Two Spheres of Identical Diameter

spheres in which $L \geq D$, $k \leq 1$. He presents a formula for the specific irradiation factor of two non-intersecting spheres of identical diameter:

$$\varphi_{12} = \frac{1}{2} - \frac{2}{3\pi}\left[\left(\frac{1}{k^2} + 1\right) E - \left(\frac{1}{k^2} - 1\right) K\right] = \frac{1}{2} - \frac{2}{3\pi}(E+B) \quad (3)$$

The complete elliptic integrals K, E, B are functions of the modulus $k \leq 1$, which is equal in this case to the ratio of the diameter of the spheres to the distance between thier centers. Osculating spheres have the greatest specific radiation factor when $k = 1$ and in this case $E + B = 2$ [Ref 3]. Table 1 shows the specific irradiation factor φ_{12} of two non-intersecting spheres with equal diameter D in dependence of $k^2 = (D/L)^2$. This table was compiled from data of tables for E and B as functions k^2 [Ref 3]. When the magnitudes of k are small (remote spheres), the elliptic integrals may be decomposed to series [Ref 3]. Using the first members of the series, less accurate

Card 2/4

The Specific Irradiation Factor of Two Spheres of Identical Diameter

approximated formulae for calculating the specific irradiation factor may be established:

$$\varphi_{12} \approx \frac{k^2}{16} \qquad (3') \text{ or, more accurately}$$

$$\varphi_{12} \approx \frac{k^2}{16}\left(1 + \frac{k^2}{8}\right). \qquad (3'')$$

In case two remote spheres, the assumption seems to be correct that the mutal surface is almost the same as for two circles with the diameter D, located in planes, perpendicular to the straight line, connecting their centers with each other at the distance L. It is possible to show that the first approximation of the spacific irradiation factor, calculated with such an assumption, will result in the formula (3') while the seond approximation will not result in formula (3'') but

KOLODNYY, D.P., kand.tekhn.nauk dots.

Discussing the problem of evaluating thermodynamic cycles.
Izv.vys.ucheb.zav.; energ. 2 no.9:141-144 S '59.
(MIRA 13:2)

1. Tashkentskiy tekstil'nyy institut.
(Thermodynamics)

KOLODNYY, D.P., kand. tekhn. nauk

Calculation of the heat exchange of furnaces. Teploenergetika 12 no.3:65-67 Mr '65. (MIRA 18:6)

1. Tashkentskiy tekstil'nyy institut.

L 30786-66 EWP(m)/EWT(l)/E.T(m)/T DJ/WW

ACC NR AP6022098 SOURCE CODE: UR/0096/66/000/004/0093/0094

AUTHOR: Kolodnyy, D. P. (Candidate of technical sciences)

ORG: none

TITLE: Problem of the coefficient of resistance to the movement of particles in a medium

SOURCE: Teploenergetika, no. 4, 1966, 93-94

TOPIC TAGS: friction coefficient, fluid dynamics, particle motion

ABSTRACT: A criticism of an article by V. I. Malov from Teploenergetika No. 3, 1965, which purported to show a formula for determination of the coefficient of resistance of spherical particles to movement through a fluid medium. The critic points out, first of all, that diagrams used by Malov were borrowed from a source and mislabeled, and also that the standard formula used by Malov to prove his point has been long known to be only approximate and with which errors of up to 40% are possible. Malov's form coefficient is also criticized as contradictory to the results of other authors. It is noted that Malov's figures for the rate of descent of a spherical particle through a liquid medium differ sharply from generally accepted figures, used for years, although the description of the experimental method given by Malov is too scanty to allow a determination of the reason for this variation. It is further pointed out that one curve presented as an illustration does not correspond to the formula it is supposed to illustrate. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 011 / OTH REF: 001

UDC: 532.620.186.8(048)

Card 1/1 AS

KOLODNYY, Lev Yefimovich; SULTANOVA, N., red.; POKHLEBKINA, M., tekhn. red.

[One hundred and nine kilometers around Moscow] 109 kilometrov vokrug Moskvy. Mosk. rabochii, 1963. 78 p.
(MIRA 17:3)

KOLODNYY, Lev Yefimovich; GUDKOVA, N., red.

[Terrestrial track of the rocket] Zemnaia trassa rakety. Moskva, Politizdat, 1965. 94 p. (MIRA 18:8)

KOLODNYY, Mark Grigor'yevich; STEPANOV, Arkhip Petrovich; GAK, D.V., prof., otv. red. ; ORLIK, Ye.L., red.; OKOPNAYA, Ye.D., tekhn. red.

[Planning of the national economy of the U.S.S.R.]Planirovanie narodnogo khoziaistva SSSR. Kiev, Izd-vo Kievskogo univ., 1963. 371 p. (MIRA 16:4)
(Russia--Economic policy)

18(5) SOV/128-59-5-19/35

AUTHOR: Kolodnyy, S.Ya., Candidate of Technical Sciences

TITLE: Formation of Nodular Graphite in Cast Iron

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 5, pp 34-36 (USSR)

ABSTRACT: The conditions for cristallyzation are given by the thermodynamic equation I. By equations 1 to 4 the energy F released during the cristallyzation process can be determined. With regard to cristallyzation, the surface tension is of great importance. It is easy to determine the surface tension but rather hard in the intermediate phases. Changes of free energy of metal oxides and sulfites at the temeprature of modifying the cast iron (1450°C.) are listed in Tab. (1). Free energy cyn be calculated by equations 5 to 9 if oxygen and sulphur are dissolved in cast iron. The author states that by reducing the contents of sulphur, the surface tension of cast iron increases. By sufficient addition of magnesium the surface tension of the intermediate phase (limit cast iron/graphite) is reduced.

Card 1/2

Formation of Nodular Graphite in Cast Iron

Both components support the formation of nodular graphite. By equation 10, the electron affinity constant can be determined, the values of which are listed in the scale as shown below the equations for the various elements. There are 14 references (two of which are English, 4 German and 8 Soviet.

KOLODNYY, S.Ya.

Formation of sulfides during a shaft furnace smelting of oxidized nickel-containing ores. Zhur. prikl. khim. 38 no.4:855-863 Ap '65. (MIRA 18:6)

TREMBOVLER, N.M., inzhener; KOLODNYY, Ya.A., inzhener.

Automatic machine lines and the possibility of their application in electrical machine building. Vest.elektroprom. 18 no.5:1-12 '47. (MLRA 6:12)

1. Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov.

(Machinery, Automatic) (Electric machinery)

KOLODNYY, Yu.I., aspirant

Study of the process of contact coagulation and the character of the distribution of sludge in the layers of the filter medium of the contact clarifier. Trudy GISI no. 40: 36-45 '61.

Reasons for the formation and the character of the distribution of the residual sludge in the layers of the filter medium of the clarifier. Ibid.:46-52

KOLODNYY, Yuriy Izrailevich; PISKUNOV, P.I., zasl. deyatel' nauki i tekhniki RSFSR, prof., doktor tekhn. nauk, red.; BULATOV, A.A., red.; KNYAZEV, V.V., red.

[Operating non-gravel contact clarifiers; an exchange of experiences] Opyt raboty kontaktnykh osvetlitelei s bezgraviinoi zagruzkoi; obmen opytom. Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1963. 92 p. (MIRA 17:9)

KOLODNYY-MAMAYEV, F., inzh.; ALEKSEYENKO, [illegible]., inzh.

For those who drive a " Java " motorcycle. Za rul. 20 no.7:19-21 Jl '62. (MIRA 15:7)

(Motorcycles)

Kolodochka, B.

GAPCHENKO, P., invalid Otechestvennoy voyny (g. Kiyev); GINDIN, G., invalid Otechestvennoy voyny (g. Kiyev); SAVINSKIY A., invalid Otechestvennoy voyny (g. Kiyev); KOLODOCHKA, B., invalid Otechestvennoy voyny (g. Kiyev); KHOVANSKIY, A., invalid Otechestvennoy voyny (g. Kiyev).

Bring order into the organization of motor wheelchair repair. Prom.koop. no.6:24 Je '57. (MLRA 10:7)
(Orthopedic apparatus)

YASTREBOV, P.P., prof.; KOLODOCHKA, G.G., inzh.

Methodology for standardizing unit expenditures of electric power in grain receiving stations. Prom. energ. 19 no. 4:2-4 Ap '64. (MIRA 17:5)

YASTREBOV, P.P., prof.; KOLODOCHKA, G.G., inzh.

Contribution of the electrical equipment industry to the development of the chemical industry. Elektrotekhnika 34 no.12:5 D '63. (MIRA 17:1)

SENCHENKO, Ya.I., kand.tekhn.nauk; KOLODOCHKA, G.G., inzh.

Saving of electric power in the manufacture of plastic products.
Prom. energ. 20 no.8:5-8 Ag '65. (MIRA 18:8)

YAGODINSKIY, V.N.; ALEKSANDROV, Yu.V.; KOLODOCHKA, L.A.

Simple device for electrophoresis. Lab. delo. no.2:122-123 '65.
(MIRA 18:2)

ALEKSANDROV, Yu.V.; KOLODOCHKA, L.A.

A new species of mites, Parholaspulus jagodinskyi (Gamasoidea, Macrochelidae). Zool. zhur. 44 no.5:770-773 '65. (MIRA 18:6)

1. Meditsinskaya sluzhba Tikhookeanskogo flota.

ALEKSANDROV, Yu.V. (Sovetskaya Gavan'); KOLODOCHKA, L.A. (Sovetskaya Gavan'); YAGODINSKIY, V.N. (Sovetskaya Gavan')

Description of the male Macrocheles superbus Hull., 1918 (Gamasoidea, Macrochelidae). Zool. zhur. 44 no.4:608-610 '65. (MIRA 18:6)

KOLODOCHKA, M.

Let's put all potentialities of the seven-year plan into action. Sil'.bud. 10 no.8:3-5 Ag '60. (MIRA 13:8)

1. Nachal'nik upravleniya stroitel'stva Sumskogo oblsel'khozupravleniya.
(Swine houses and equipment)

KOLODOCHKA, O.O.

Work practices of our truck supply base. Mekh. sil'. hosp. 14 no.7: 12-13 Jl '63. (MIRA 17:2)

1. Zaveduyushchiy avtobazoy Cherkasskogo otdeleniya "Sil'gosptekhniki".

KOLODOCHKA, P. (Krasnodar).

Adjustment of the microphone transformer. Radio no.8:31 Ag '53. (MLRA 6:8)
(Radio--Transformers)

KOLODOCHKA, Petr Akimovich; KOVALEV, P.F., redaktor; PROZOROVSKAYA, V. L. tekhnicheskiy redaktor.

[Booklet for cutting-machine operators] Pamiatka dlia mashinista vrubovoi mashiny. Moskva, Ugletekhizdat, 1955. 61 p. (MLRA 8:8)
(Mining machinery--Safety measures)

KOLODOCHKA, P. A.

"Transformer Sub-stations Liable to Explosions"

report presented at the All-Union Scientific and Technical Conference on the Electrical Equipment in Buildings and Outside Installations Liable to Explosions, 14-19 April 1958, Stalino
(Energet. Byulleten', 1958, No. 7, pp 29-33)

KOLODOCHKA, P.A.

Developing a new sparkproof diagram for the remote control of mining machinery and mechanisms. Trudy MakNII 9 no.2: 127-141 '59. (MIRA 12:8)
(Mining machinery--Electric driving) (Remote control)

KOLODOCHKA, P.A.

Explosionproof properties of quarts filler under conditions of a spark-ignited gas mixture. Trudy MakNII 12: Vop. gor. elektromekh. no.4:39-56 '61. (MIRA 16:6)

(Electric machinery—Safety appliances)
(Quartz)

KOLOSOCHKA, V.T., fel'dsher

Preventive work at a subterranean health center. Fel'd. i akush. no.10:33-34 O '54. (MLRA 7:11)

1. Shakhta "Yushnaya" Stalinskoy oblasti.
(MINING,
prev. role of med. station in mines)
(INDUSTRIAL HYGIENE,
in mines, prev. role of med. stations)

KOLODOCHKA, V.T., fel'dsher (shakhta Yuzhnaya Stalinskoy oblasti)

Control of mine accidents conducted by the underground health clinic. Fel'd.i akush. no.5:40-42 My '55. (MLRA 8:7)

(INDUSTRIAL HYGIENE,
prev. of trauma in miners, underground dispensary in Russia)
(WOUNDS AND INJURIES, prev. and control,
in miners, underground dispensary in Russia)
(MINING,
miner's trauma, control in Russia, underground dispensary)

31075
S/179/61/000/005/006/022
E031/E426

10.1200
26.2111

AUTHOR: Kolodochkin, V.P. (Moscow)

TITLE: The calculation of supersonic flow round cones at incidence

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye. v.5, 1961, 38-43

TEXT: The method consists of the numerical integration of the equations of gas dynamics in three meridional planes. The equations used are the equation of continuity, three vortex equations solved for the shock angle, and the Bernouilli equation. Terms of the second order of smallness are ignored and the solution sought in the form of truncated Fourier series, using the method of successive approximations. The results agree with experimental data up to angles of incidence of 20 to 25°. The method if claimed to be superior to that of A. Stone (Ref.4: J. Math. Phys., 1952, no.1) because of the greater accuracy arising from the fact that the parameters on the shock are calculated using the actual angle of incidence, and because the method is valid at

Card 1/2

31075
S/179/61/000/005/006/022
E031/E426

The calculation of supersonic ...

large shock wave angles and large values of M_∞. Accuracy may be increased by using additional meridional planes. There are 4 figures and 5 references: 2 Russian translations from non-Soviet-bloc publications and 3 non-Soviet-bloc. The three references to English-language publications read as follows:
Ref.1: Sears W.R. General Theory of High Speed Aerodynamics. Princeton University Press, 1954;
Ref.2: Ferry A. Supersonic Flow Around Circular Cones at Angles of Attack, NACA Report, 1961, 1045;
Ref.4: as quoted in text.

SUBMITTED: May 22, 1961

Card 2/2

37134
S/179/62/000/002/027
E191/E435

10.1200
AUTHOR: Kolodochkin, V.P. (Moscow)
TITLE: Analysis of supersonic flow around pointed solids of revolution at a small incidence angle
PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye. no.1, 1962, 15-24

TEXT: Reference is made to A.Ferry ("The method of characteristics for the determination of supersonic flow over bodies of revolution at small angles of attack". NACA Report, 1951, 1044), wherein the problem of flow over bodies of revolution is solved by a linearized method of characteristics taking into account second order terms. The order is defined as the power of the angle of incidence. Equations are derived from which, by the method of characteristics, all the desired quantities can be found at the points of intersection of the characteristics between them and with the contour of the body. To determine the points of the shockwave it is necessary to introduce also relations applicable to the shockwave. In exacting terms beyond the first order, the

Card 1/3

...nt, the
...nd then the
...tions are given for
...tic computations were
...EVM M-20) computer for a

cylindrical body with conical noses and with Ogival noses having slenderness ratios of 2.0, 3.0, 3.5 and 4.0 at approach Mach numbers between 1.5 and 6.0. The results are shown in several graphs giving velocity and pressure distributions. The computations in some cases are compared with the work of A.J.Eggers and R.C.Savin ("The generalized shock-expansion method and its application to bodies travelling at high supersonic speeds". J. Am. Soc., 1955, v.22, no.4), in respect of pressure distribution and lift slope. It is stated that the computations presented here are suitable for the region up to 10 diameters along the axis of the body at zero incidence and up to 5 diameters at an incidence below 5° in the range of approach Mach number between 1.5 and 6.0. There are 12 figures.

SUBMITTED: September 7, 1961

Card 3/3

KOLODOCHKIN, V.V.

Remote control of bunker filling and automatic elimination or ore sticking. Izv. AN Kir. SSR. Ser. est. i tekh. nauk 5 no.1:77-83 '63. (MIRA 16:11)

DROGOVEYKO, I.Z., inzh.; KOLODOCHKIN, Yu.S., inzh.

Experience with the blasting substance of the Mining Institute of the Academy of Sciences of the U.S.S.R. in drilling and blasting. Mont. i spets. rab. v stroi. 25 no.5:26-28 My '63. (MIRA 16:7)

(Blasting)

DRAGOVEYKO, I.Z., gornyy inzh.; KOLODOCHKIN, Yu.S.

Using igdanite in the Krasnoyarsk Territory. Vzryv. delo no.54/11:338-342 '64. (MIRA 17:9)

1. Krasnoyarskoye stroitel'noye upravleniye Vsesoyuznogo tresta po burovzryvnym rabotam Ministerstva promyshlennosti stroitel'nykh materialov SSSR.

SURIS, P.L., inzh.; KOLODOCHKO, S.A., inzh.

Testing of an atmospheric turbine safety valve. Energetik 8 no. 12:17 D '60. (MIRA 13:12)
(Steam turbines--Safety appliances)

87944
S/094/61/000/001/004/007
E073/E335

26.2194

AUTHORS: Kamyrin, V.I., Kolodochko, S.A., Revzin, B.S. and Smagin, Yu.A.

TITLE: Reducing the Hydraulic Losses in Regulating Valves of High-pressure Turbines

PERIODICAL: Promyshlennaya energetika, 1961, No. 1, pp. 15 - 16

TEXT: In a number of turbines produced by the Leningradsiy metallicheskiy zavod (Leningrad Metallurgical Works) and operating at high parameters, increased losses in steam pressure occurred in the control valves of the live steam, amounting to 12-15 kg/cm^2 instead of the 3-3.5 kg/cm^2 estimated in calculations. These losses are particularly great in the top control valves (I and III) of the turbines of types BK-100-2 (VK-100-2), BK-50-1 (VK-50-1), BT-25-4 (VT-25-4), etc. The authors found that the basic cause of this is the formation of a general circular vortex - a circulatory motion of the steam about the valve axis.

Card 1/4

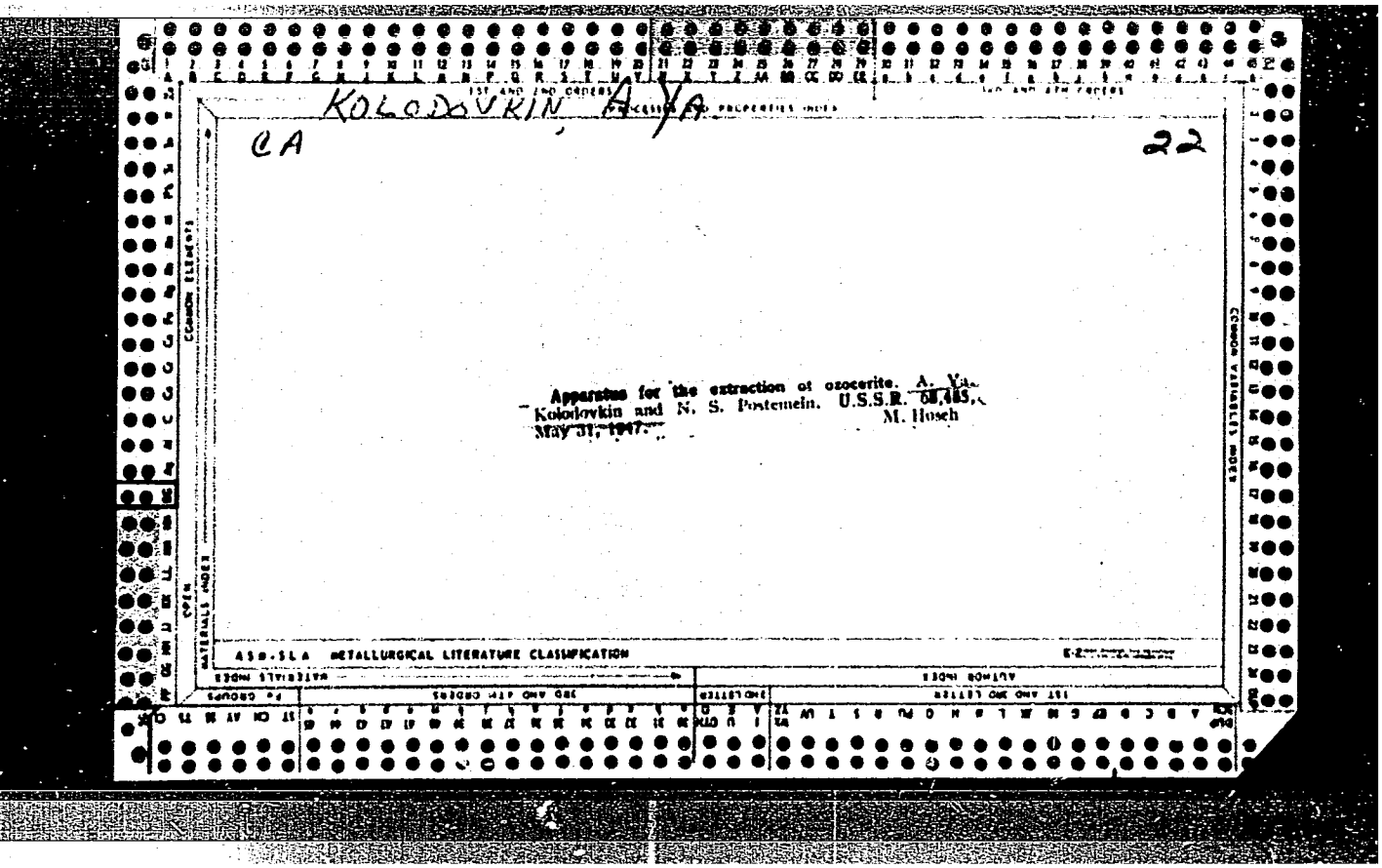
879 44

S/094/61/000/001/004/007
E073/E335

Reducing the Hydraulic Losses in Regulating Valves of High-pressure Turbines

To eliminate this phenomenon the authors proposed welding a divider (Fig. 1) into the valve housing, as shown in Fig. 2, and fitting a protective grid at the side of the steam inflow into the housing, so as to reduce the dynamic effect of the steam inflow into the diffuser seat. As a result of introducing this measure a fuel economy of 600-900 tons per turbine per annum was achieved.
This suggestion was awarded third prize in the Fifteenth All-Union Competition on Energy Saving.
Note: this is a complete translation.

Card 2/4


KOLODOVKIN, A. Ya.

CA

22

Apparatus for the extraction of ozocerite. A. Ya. Kolodovkin and N. S. Postemein. U.S.S.R. 68,485, May 31, 1947. M. Hosch

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

KOLODOVICH, A. A.

Outline of the Korean grammar for higher educational institutions Moskva, Izd-vo lit-ry na inostrannykh iazykakh, 1954. 319 p. (55-43073)
PL913.K5

KOLODOVSKIY, V.

Following a steady development. Sel'. stroi. 12 no.8:9 Ag '57.
(MLRA 10:9)

1. Predsedatel' Soveta Rudnyanskoy mezhkolkhoznoy stroitel'noy organizatsii Smolenskoy oblasti.
(Rudnya District--Construction industry)

RUBINSHTEYN, B.B.; BELOUSOVA, V.K.; ZHUKOVA, Z.N.; KOLODOVSKIY, V.L.; PROKHOROVA, O.M.; SAYKOVSKAYA, V.A.

Smallpox vaccination in the White Russian S.S.R. Zdrav. Bel. 7 no. 2:38-40 F '61. (MIRA 14:2)

1. Iz Belorusskogo instituta epidemiologii, mikrobiologii i gigiyeny (direktor V.I. Votyakov).
(WHITE RUSSIA—SMALLPOX—PREVENTION)

KOLODOVSKIY, Ye.

Use a basis of standardization for the number of technical workers and officials. Sots. trud no.5:104-106 My '57.
(Industrial management) (MLRA 10:6)

KOLODOVSKY, MILAN

L 41519-65 ARG/EEO-2/EWG(j)/EWT(d)/FBD/FSS-2/EWG(r)/EWT(l)/FBO/EWP(e)/EWA(c)/EWT(m)/FS(v)-3/EPF(c)/EEC(k)-2/EWG(a)-2/EWP(i)/EWP(f)/EWG(v)/EWP(c)/EWP(v)/EWA(l)/EPR/EWP(j)/T-2/EWG(a)-2/EWP(h)/EPA(bb)-2/EEC(c)-2/EED-2/EWG(c)/FCS(k)/EWP(b)/ AM5015110 Pi-4/Pw-4/Pk-4/Pn-4/ BOOK EXPLOITATION Pi-4/Ph-4/Pac-2/Pa-4/Pr-4/ Po-4/Pe-5/Pq-4/Pac-4/Fr-4/ IUP(c) AST/TT/MM/DD/RM/GM/BC/JH

Parvir, Miroslav, (Engineer); Benes, Konrad, (Professor, Doctor); Bouska, Jiri, (Doctor); Budil, Ivo, (Graduate in Philosophy); Cepelecha, Zdenek, (Candidate of Physical and Mathematical Sciences); Cedr, Milan, (Doctor); Dolezal, Vladimir, (Doctor); Dvorak, Antonin, (Candidate of Medical Sciences); Dvorak, Josef, (Doctor); Guth, Vladimir, (Candidate of Medical Sciences, Docent, Doctor); Horak, Zdenek, (Doctor of Physical and Mathematical Sciences, Corresponding Member of the Czechoslovak Academy of Sciences, Professor, Doctor); Hospodar, Jan, (Doctor of Physical and Mathematical Sciences, Doctor); Kleczek, Josip, (Doctor); Klest, Emil, (Candidate of Physical and Mathematical Sciences); Kolodovsky, Milan; Koml, Vladimir (Doctor); Kopecky, Miloslav, (Candidate of Legal Sciences); Krivsky, Ladislav, (Candidate of Physical and Mathematical Sciences); Kviz, Zdenek, (Candidate of Physical and Mathematical Sciences); Ledvina, Milan, (Engineer); Malcik, Vladimir, (Doctor); Moravek, Milan, (Candidate of Medical Sciences); Mrazek, Jaroslav, (Candidate of Medical Sciences, Engineer); Mrazek, Jiri, (Candidate of Technical Sciences); Neuzil, Ludek, (Doctor); Novotny, Zdenek, (Candidate of Physical and Mathematical Sciences); Novotny, Zdenek, (Doctor); Pernegr, Jaroslav, (Doctor; Candidate of Physical and Mathematical Sciences); Penek, Rudolf, Professor, Doctor, Engineer); Pipal, Miloslav, (Doctor of Technical Sciences, Corresponding member, of the Czechoslovak Academy of Sciences); Plavec, Miroslav, (Doctor); Pokorny, Zdenek, (Candidate of Physical and Mathematical Sciences, Docent, Doctor);

Card 1/2

L 41519-65
AM4045110

14

Ruml, Vladimir, (Candidate of Medical Sciences, Doctor); Sadil, Josef, (Doctor of Physiological Sciences); Schnal, Ladislav; Stverak, Jiri, (Doctor); Svestka, Zdenek, (Doctor); Tuma, Jaroslav, (Candidate of Physical and Mathematical Sciences, Doctor); Tyal, Vaclav, (Docent, Engineer); Ulehla, Ivan, (Candidate of Technical Sciences, Professor, Doctor); Valnicek, Boris, (Candidate of Physical and Mathematical Sciences, Doctor); Vanysek, Vladimir, (Candidate of Physical and Mathematical Sciences, Docent, Doctor); Vlasak, Marian, (Candidate of Physical and Mathematical Sciences; Doctor); Voda, Miloslav, (Engineer)

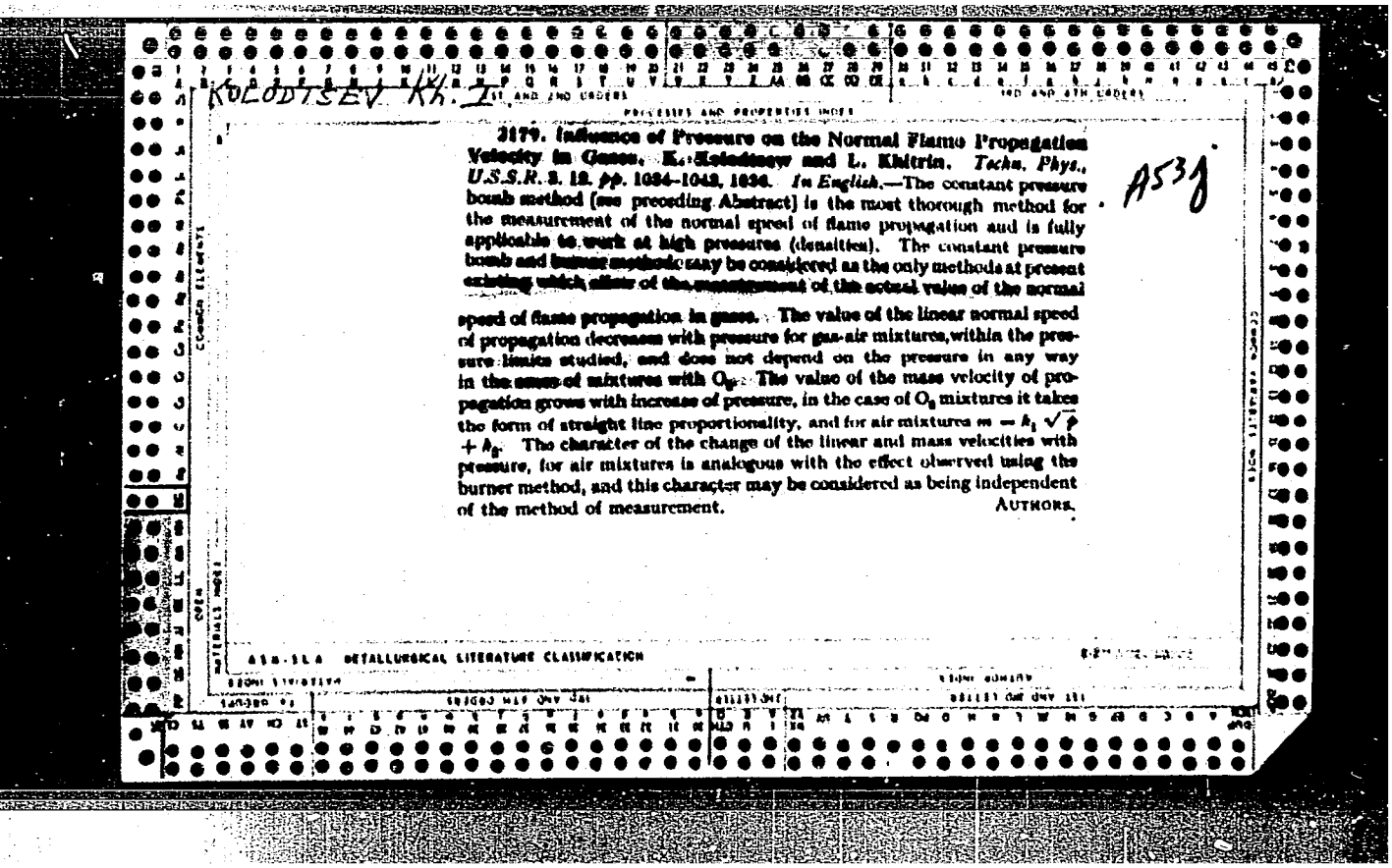
Principles of astronautics (Zaklady kosmonautiky) Prague, Orbis, 1964. 445 p. illus., biblio. 5000 copies printed.

TOPIC TAGS: cosmonautics, rocket, satellite, space flight, missile

PURPOSE AND COVERAGE: This publication is a popular scientific reference book for people working in cosmonautics. The book presents a survey of cosmonautics and space flight up to 1 June 1963.

TABLE OF CONTENTS:

Card 2/8



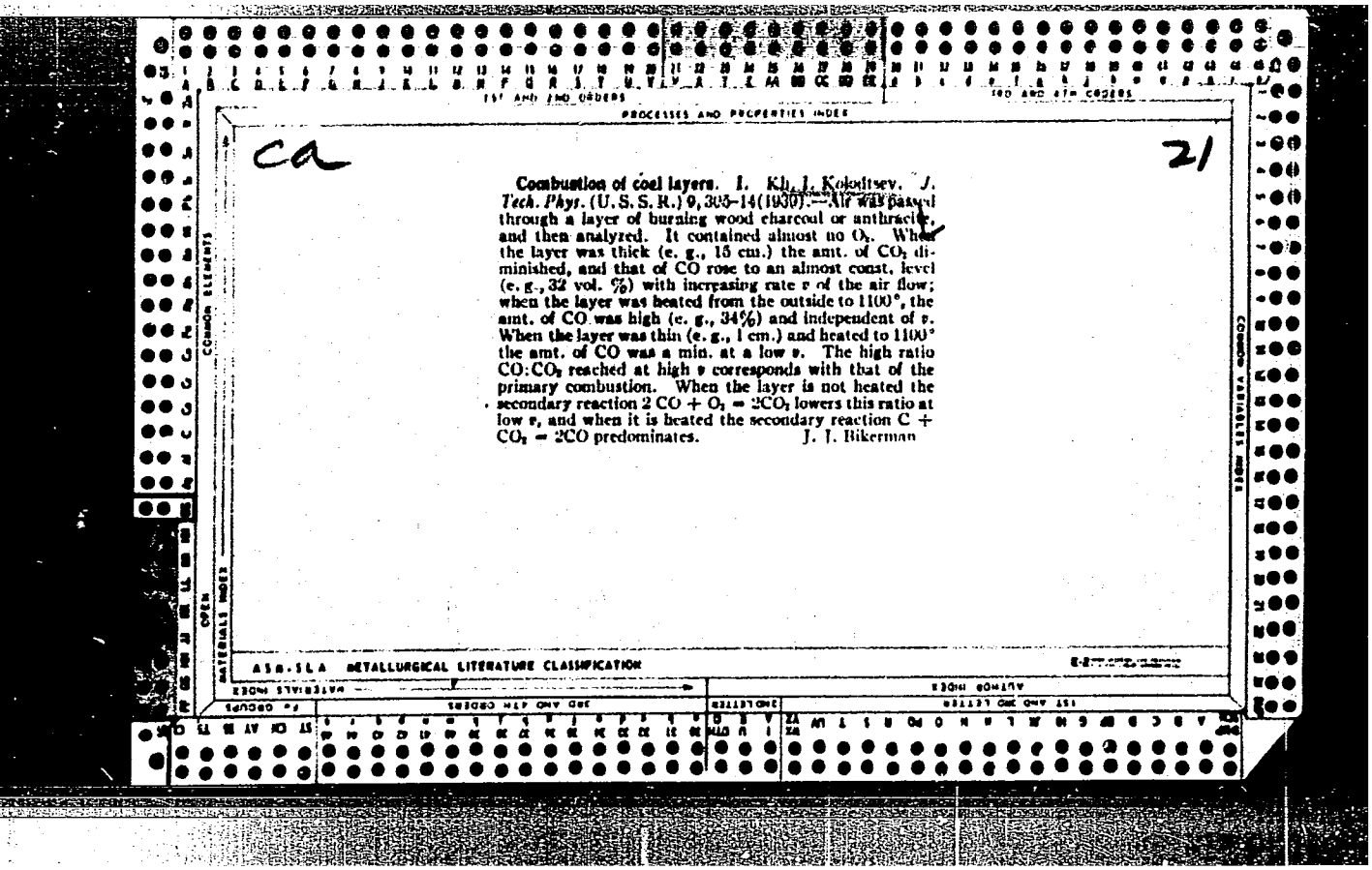
KOLODTSEV KK.

PROCESSES AND PROPERTIES INDEX

3179. **Influence of Pressure on the Normal Flame Propagation Velocity in Gases.** K. Kolodtsew and L. Khitrin. *Techn. Phys., U.S.S.R.* 3. 12. *pp.* 1034–1042, 1936. *In English.*—The constant pressure bomb method (see preceding Abstract) is the most thorough method for the measurement of the normal speed of flame propagation and is fully applicable to work at high pressures (densities). The constant pressure bomb and burner methods may be considered as the only methods at present existing which allow of the measurement of the actual value of the normal speed of flame propagation in gases. The value of the linear normal speed of propagation decreases with pressure for gas-air mixtures, within the pressure limits studied, and does not depend on the pressure in any way in the case of mixtures with O_2. The value of the mass velocity of propagation grows with increase of pressure, in the case of O_2 mixtures it takes the form of straight line proportionality, and for air mixtures $m = A_1 \sqrt{p} + A_2$. The character of the change of the linear and mass velocities with pressure, for air mixtures is analogous with the effect observed using the burner method, and this character may be considered as being independent of the method of measurement. AUTHORS.

A53J

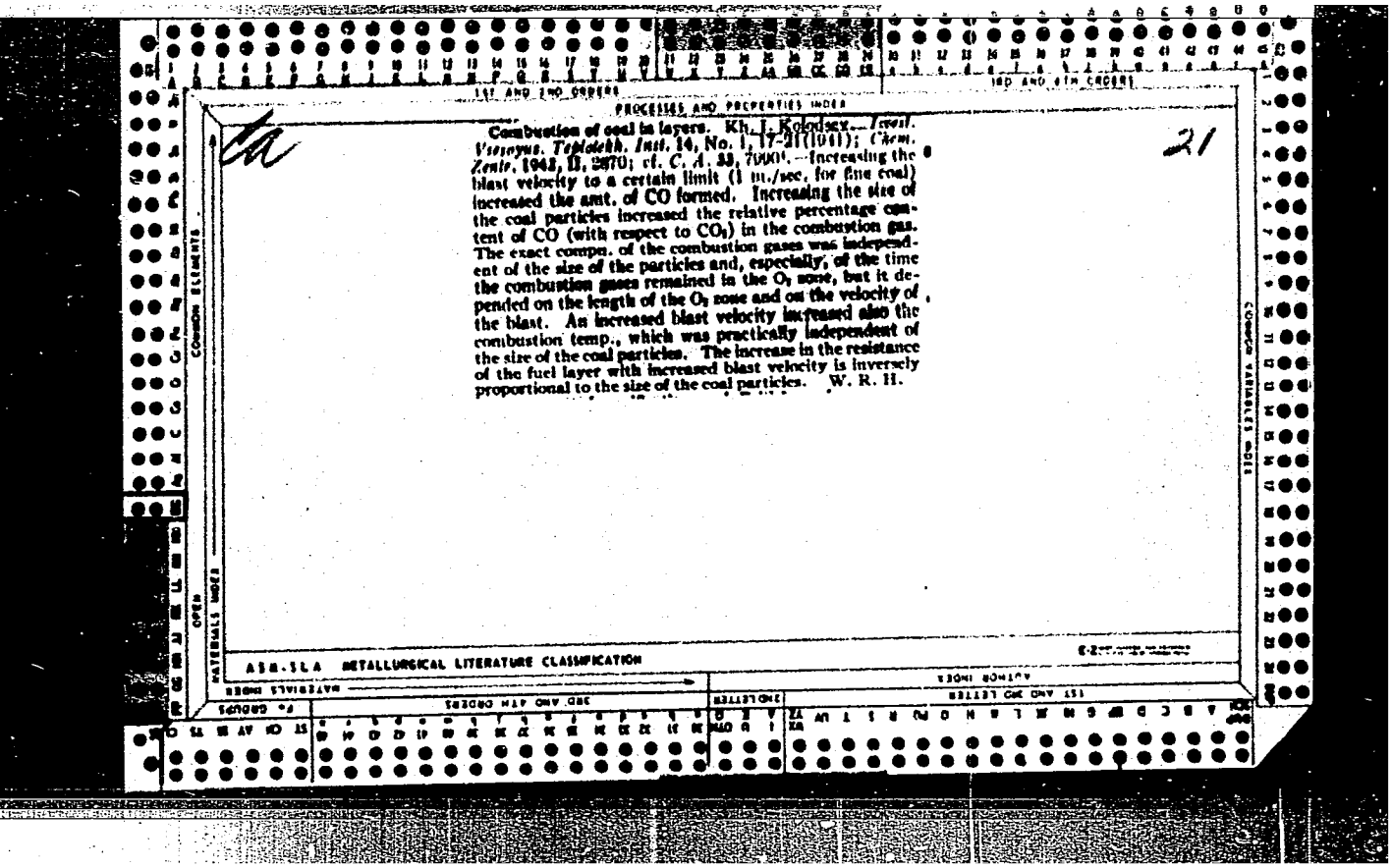
A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION



ca

21

Combustion of coal layers. I. Kh. I. Kokolitsev. *J. Tech. Phys.* (U. S. S. R.) 9, 305–14 (1930).—Air was passed through a layer of burning wood charcoal or anthracite, and then analyzed. It contained almost no O_2. When the layer was thick (e. g., 15 cm.) the amt. of CO_2 diminished, and that of CO rose to an almost const. level (e. g., 32 vol. %) with increasing rate v of the air flow; when the layer was heated from the outside to 1100°, the amt. of CO was high (e. g., 34%) and independent of v. When the layer was thin (e. g., 1 cm.) and heated to 1100° the amt. of CO was a min. at a low v. The high ratio $CO:CO_2$ reached at high v corresponds with that of the primary combustion. When the layer is not heated the secondary reaction $2CO + O_2 = 2CO_2$ lowers this ratio at low v, and when it is heated the secondary reaction $C + CO_2 = 2CO$ predominates. J. J. Bikerman

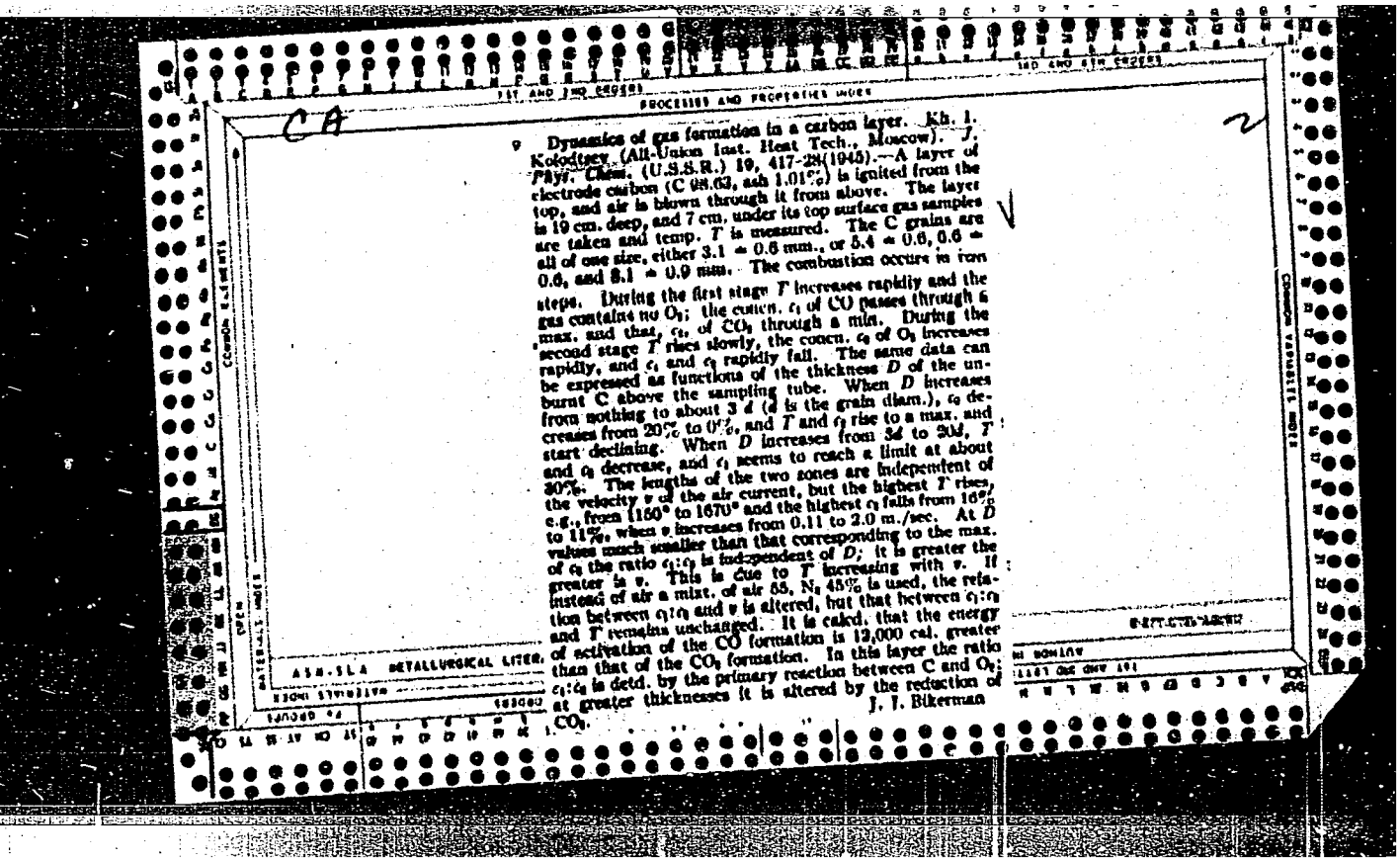


PROCESSES AND PROPERTIES INDEX

Combustion of coal in layers. Kh. I. Kolodtsev. *Trudy Vsesoyuz. Teplotekh. Inst.* 14, No. 1, 17-31(1941); *Chem. Zentr.* 1943, II, 2870; cf. *C. A.* 35, 7000⁶.—Increasing the blast velocity to a certain limit (1 m./sec. for fine coal) increased the amt. of CO formed. Increasing the size of the coal particles increased the relative percentage content of CO (with respect to CO_2) in the combustion gas. The exact compn. of the combustion gases was independent of the size of the particles and, especially, of the time the combustion gases remained in the O_2 zone, but it depended on the length of the O_2 zone and on the velocity of the blast. An increased blast velocity increased also the combustion temp., which was practically independent of the size of the coal particles. The increase in the resistance of the fuel layer with increased blast velocity is inversely proportional to the size of the coal particles. W. R. H.

21

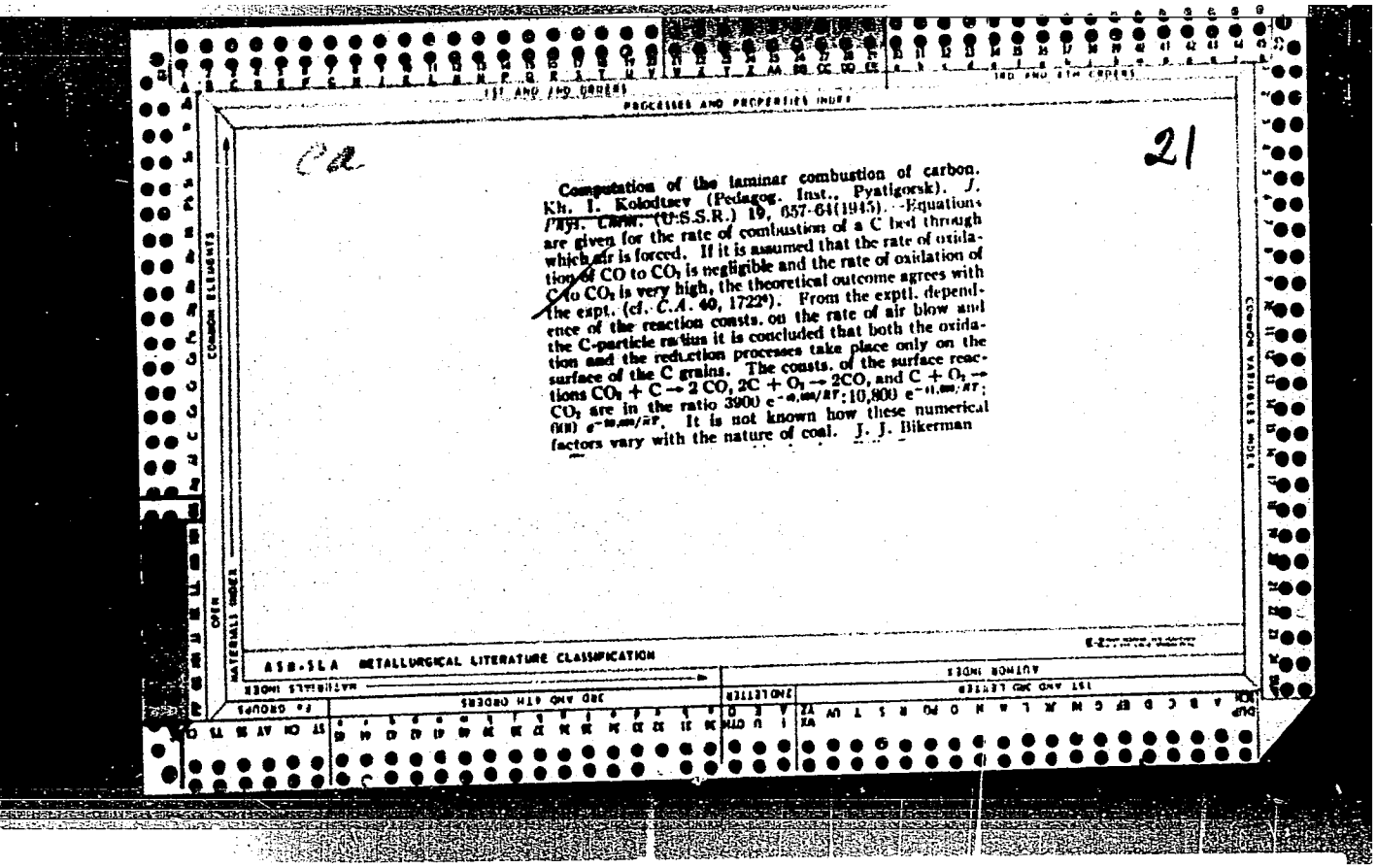
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

9 Dynamics of gas formation in a carbon layer. Kh. I. Kolodtsev (All-Union Inst. Heat Tech., Moscow). *J. Phys. Chem.* (U.S.S.R.) 19, 417-28(1945).—A layer of electrode carbon (C 98.63, ash 1.01%) is ignited from the top, and air is blown through it from above. The layer is 19 cm. deep, and 7 cm. under its top surface gas samples are taken and temp. T is measured. The C grains are all of one size, either 3.1 = 0.6 mm., or 5.4 = 0.6, 0.6 = 0.6, and 8.1 = 0.9 mm. The combustion occurs in two steps. During the first stage T increases rapidly and the gas contains no O_2; the concn. c_1 of CO passes through a max. and that, c_2, of CO_2 through a min. During the second stage T rises slowly, the concn. c_3 of O_2 increases rapidly, and c_1 and c_2 rapidly fall. The same data can be expressed as functions of the thickness D of the unburnt C above the sampling tube. When D increases from nothing to about 3 d (d is the grain diam.), c_3 decreases from 20% to 0%, and T and c_2 rise to a max. and start declining. When D increases from 3d to 30d, T and c_3 decrease, and c_1 seems to reach a limit at about 30%. The lengths of the two zones are independent of the velocity v of the air current, but the highest T rises, e.g., from 1150° to 1670° and the highest c_2 falls from 16% to 11%, when v increases from 0.11 to 2.0 m./sec. At D values much smaller than that corresponding to the max. of c_2 the ratio $c_1:c_2$ is independent of D; it is greater the greater is v. This is due to T increasing with v. If instead of air a mixt. of air 55, N_2 45% is used, the relation between $c_1:c_2$ and v is altered, but that between $c_1:c_2$ and T remains unchanged. It is calcd. that the energy of activation of the CO formation is 12,000 cal. greater than that of the CO_2 formation. In this layer the ratio $c_1:c_2$ is detd. by the primary reaction between C and O_2; at greater thicknesses it is altered by the reduction of CO_2.

J. J. Bikerman



Ca

21

Computation of the laminar combustion of carbon. Kh. I. Kolodtsev (Pedagog. Inst., Pyatigorsk). *J. Phys. Chem.* (U.S.S.R.) 19, 657-64(1945).—Equations are given for the rate of combustion of a C bed through which air is forced. If it is assumed that the rate of oxidation of CO to CO_2 is negligible and the rate of oxidation of C to CO_2 is very high, the theoretical outcome agrees with the expt. (cf. *C.A.* 40, 1722⁹). From the exptl. dependence of the reaction consts. on the rate of air blow and the C-particle radius it is concluded that both the oxidation and the reduction processes take place only on the surface of the C grains. The consts. of the surface reactions $CO_2 + C \rightarrow 2\,CO$, $2C + O_2 \rightarrow 2CO$, and $C + O_2 \rightarrow CO_2$ are in the ratio 3900 $e^{-a,000/RT}$:10,800 $e^{-11,000/RT}$:6(10) $e^{-30,000/RT}$. It is not known how these numerical factors vary with the nature of coal. J. J. Bikerman

KOLODTSEV, Kh. I., GRODZOVSKIY, M. K., PREDVODITELEV, A. S., KHITRIN, L. N., and TSUKHANOVA, O. A.

"Combustion of Carbon." Experiments in Building Up the Physicochemical Principles of the Process." Academy of Sciences USSR, 1949, 408 pp, 2,500 Copies.

KOLODTSEV KHRISTOFOR IOSIFOVICH - Stalin Prize

KOLODTSEV, A.

Kolodtsev, A. "The windmill aggregate", (Based on A. A. Rozhonovskiy's design) Illustrated by A. Katkovskiy, Tekhnikamolodezhi, 1949, No. 3, p. 31

SO: U-4934, 29 Oct 53, (Letopis 'Zhurnal 'nykh Statey. No. 16, 1949)

Kolodtsev, Kh. I.

Cand, Phys-Math Sci.

1407. HEARTH GASIFICATION OF COAL IN POWER PRODUCTION.
Kolodtsev, Kh. I. and Orol'chenko, I.F. (Izv. Vsesoyuz. Teplotekh. Inst. [Bull. All-Un. Pwr Engng Inst.], 1952, vol. 21, (9), 12-18; Abstr. in Chem. Abstr., 1954, vol. 48, 3010). Gasification on a hearth is shown to offer industrial advantages by producing very high $CO:(CO + CO_2) = 0.82$ with a hearth bed 300-350 mm deep. The maximum experimental load amounted to 1350 kg fuel/sq. m h or upwards of 9×10^6 kcal./sq. m h with the upper limit not yet reached. The temperature of 1700° is reached cyclically with a cool blast, which is favourable to the fusion and running down of slags, with the slag yield of 96%. The cold blast is best introduced in a combination of the central nozzle of 15 to 35%. C.A.

KOLODTSEV, KH.

USSR /Chemical Technology. Chemical Products and Their Application I-15

Treatment of solid mineral fuels

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31849

Author : Kolodtsev Kh. I., Babiy V. I.

Inst : All-Union Power Engineering Institute

Title : High-Intensity Gasification of Solid Fuel for Gas Turbine Units

Orig Pub: Teploenergetika, 1956, 3, No 9, 18-24

Abstract: Various procedures of utilizing solid fuel for gas turbine units are considered, and a substantiation is provided of the procedure, developed at the All-Union Institute of Power Engineering, of furrace gasification of solid fuel under pressure,

Card 1/3

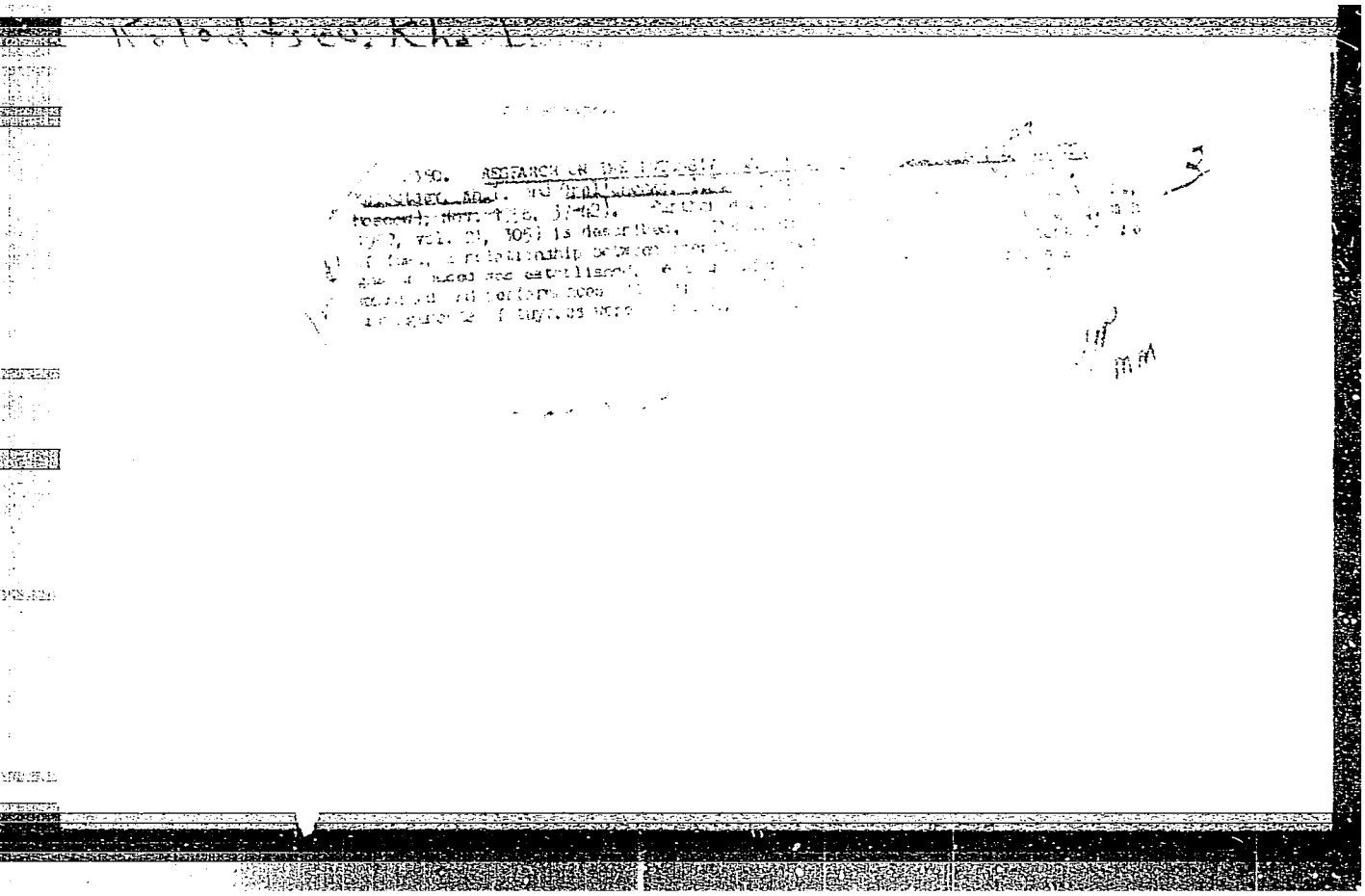
USSR /Chemical Technology. Chemical Products and Their Application I-15

Treatment of solid mineral fuels

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31849

shown and it is pointed out that the thermal stress of such generators amounts to 10 million kcal/m^2/hour, i.e., is 10-12 times higher than in modern heating and gas-generator devices; a gas turbine unit with a power rating of 25000 kilowatts and an efficiency of about 30%, requires one gas generator 3 m in diameter.

Card 3/3



26(1) PHASE I BOOK EXPLOITATION SOV/2191

Kolodtsev, Kh. I., Candidate of Physical and Mathematical Sciences, and B.D. Katsnel'son, Candidate of Technical Sciences

Ispol'zovaniye tverdogo topliva v gazoturbinnykh ustanovkakh (Use of Solid Fuel in Gas-Turbines) Moscow, 1958. 85 p. (Series: Energeticheskaya promyshlennost') Errata slip inserted. 3,000 copies printed.

Sponsoring Agencies: Akademiya nauk, SSSR. Institut nauchnoy i tekhnicheskoy informatsii. Otdel nauchno-tekhnicheskoy informatsii. Sektor energeticheskoy promyshlennosti, and USSR. Sovet Ministrov. Gosudarstvennyy nauchno-tekhnicheskiy komitet.

Ed.: Kh.I. Kolodtsev, Candidate of Physical and Mathematical Sciences.

PURPOSE: This book is intended for engineers and students investigating the use of solid fuels in stationary gas-turbine units, its gasification and combustion under different operating conditions.

Card 1/4

Use of Solid Fuel in Gas-Turbines SOV/2191

COVERAGE: An attempt is made in this book to review the problem of using a solid fuel in stationary gas-turbine units and to analyze the results of investigations and developments made with a view to indicating the most promising course of further studies. The study consists of two parts: the first, written by Kh.I. Kolodtsev, deals with results of solid fuel gasification tests, and the second part, written by B.D. Katsnel'son, deals with combustion of pulverized fuel in gas-turbine units. The authors point out that electric power stations using Soviet manufactured gas-turbine units are now quite common. The necessity of making further studies on the possibilities of operating solid fuel gas turbines is emphasized. Different methods of solid fuel gasification as well as various types of gas generators are described. The great importance of widening the range of fuels which could be used in gas turbine units is pointed out and efforts which have been made to utilize low quality pulverized fuel in gas generators are outlined. The book contains a number of flow charts, gas generator designs, and graphs. No personalities are mentioned. There are 36 references: 24 Soviet, 10 English, 1 German, and 1 French.

Card 2/4

Use of Solid Fuel in Gas-Turbines SOV/2191

TABLE OF CONTENTS:

Foreword 3

Introduction 5

Gasification of Solid Fuel for Gas-turbine Units 7
Different methods of gasifying solid fuel used in gas turbine units (GTU) 8
Gasification of solid fuel for gas-turbine units, carried out in a gas generator with liquid slag removal 25
Possibilities of utilizing low quality fuel in gas generators of gas-turbine units 40

Combustion of Powdered Fuel in Gas-turbine Units 42
Operational scheme of the gas-turbine unit operating on powdered fuel 42
Investigations made in a laboratory pilot plant on combustion of coal powder carried out under pressure 47

Card 3/4

Use of Solid Fuel in Gas-Turbines SOV/2191

Combustion chamber with dry ash removal 52
Combustion chamber with liquid slag removal 61
Combustion chamber of a gas-turbine unit operating on peat 82

Bibliography 85

AVAILABLE: Library of Congress (TP762.K63)

Card 4/4

TM/jmr
9-8-59

SOV/96-58-5-5/27

AUTHORS: Kolodtsev, Kh.I., Candidate of Phys.-Math. Sciences and Babiy, V.I., Candidate of Technical Sciences

TITLE: High-intensity Gasification of Coal Dust in a Layer of Lump Fuel Under Pressure (Vysokointensivnaya gazifikatsiya ugol'noy pyli v sloye kuskovogo topliva pod davleniyem)

PERIODICAL: Teploenergetika, 1958, Nr 5, pp 25 - 31 (USSR).

ABSTRACT: The All-Union Thermo-technical Institute has developed a new type of high-intensity gas generator for gas-turbine installations. It works under pressure with continuous liquid slag removal and has been described in Teploenergetika, 1956, Nr 9. Although it has advantages, its field of application is limited because it requires fuel in lumps. It could be much more widely used if low-grade fuel, particularly dust, could be used in it.

The laboratory of the physics of combustion has developed a method of combined burning and gasification of coal dust in a layer of lump fuel by adapting forge-hearth techniques. The coal dust is delivered, together with the air blast, directly into the layer of hot lumps of fuel: in this arrangement, the motion of the particles and the conditions of burning are very different from those occurring in an ordinary furnace or in cyclone combustion. The coal dust burns and is gasified on

Card1/8

the surfaces of the lumps and high temperatures of 1,700 - 1,800 °C are reached. Under these conditions of burning, the consumption of lump fuel can be very small because the coal dust delivered with the draught and deposited on the surface of the lump is rapidly heated up and burnt and thus, to a large extent, prevents any reaction by the lump fuel. The first tests on this method of combustion demonstrated its effectiveness but more detailed investigation could be undertaken only after completion of work on the high-intensity gasification of lump fuel and the development of an effective design of gas generator.

The organisation and conduct of the experiments is then described. The tests with coal dust were made on the existing experimental installation with capacity up to 350 kg/hr of fuel. It was fitted with a fuel feeder and also with arrangements to deliver an air/fuel mixture. A diagram of the installation is given in Figure 1, which also shows the position of sampling points and measuring equipment. The high temperatures developed in the furnace liquefy the ash. The gasification products formed move through a layer of fuel and become enriched with carbon

monoxide by the reduction of carbon dioxide on the fuel surface. A little of the gas leaves with the slag but is separated from it and passed to the gas main.
All the tests were made with cold-air blast at an almost constant flow of 1,330 kg/hr and, except where mentioned below, at a pressure of 5 atm. In the tests, the consumption of coal dust ranged from 0 to 255 kg/hr and the consumption of lump fuel from 315 to 105 kg/hr. Altogether, 26 tests were made using dust from lean coal and anthracite with various degrees of milling and ash content. The characteristics of the fuels are given in Table 1. The measurements made are fully described. As there were no reserve bunkers, the tests could not exceed four hours' duration. Although the blast was cold, combustion and liquid slag removal took place normally as in the previous tests without air delivery.
From the test results that were obtained, it was possible to determine the basic characteristics of this new but still imperfect process. These characteristics include primarily the degree of combustion of dust and the ratio of the combustion of lump to that of pulverised fuel for a given

load; also, the composition of the gas, its dust content before and after cyclone treatrent, the nature of the carry-over, the output of cold slag and so on. Four tests were made at pressures of 3.5 and 7 instead of 5 atm. but were, of course, insufficient to establish the effect of pressure on combustion under these conditions. Figures for the dust content of the gas before and after cyclone precipitation are shown in Figure 2. Up to a fuel delivery rate of about 100 kg/hr, the dust content of the generator gas remains approximately constant at about 15 g/m^3, but further increase in the rate of delivery increases the dustiness of the gas, indicating a carry-over of unconsumed material. The data given in Figure 2 relate to two different grades of coal and two very different fractional compositions of the pulverised fuel. The small effect of these variations on the results will be noted. The fractional composition of the material trapped in the cyclone, given in Table 2, may be compared with the corresponding figures for the initial fuel given in Table 1. The order of magnitude of the particles in the carry-over is the same when using fuels ground to different degrees of fineness. Figure 3 relates the

ash content of the material trapped by the cyclone to the fuel consumption. The ash-content is appreciably reduced as the fuel delivery rate is increased, indicating that the proportion of unburned material increases. Figure 6 shows the relationship between the consumption of lump and pulverised fuel.

In analysing the above conditions of combustion, it should be remembered that the air flow was maintained practically constant throughout the experiment and therefore the excess-air ratio varied from one test to another. These ratios are also recorded in Figures 4 and 5.

Despite considerable carry-over of unburnt coal, the pulverised fuel was intensively gasified and even quite a thin fuel layer, of the order of 0.5 m, gives a gas of practically the same fuel value as that obtained by gasifying lump coal. The combustible content of most of the gas was: Co 22-23%, H_2 3-4%, CH_4 0.4-0.8%. The concentration of CO_2 was about 7% and the calorific value of the gas is about 850 kcal/m^3. Since the gas that passes down with the slag is of high CO_2

High-intensity Gasification of Coal Dust in a Layer of Lump Fuel Under Pressure

content, the gas delivered to the collector after mixing of the two flows has a calorific value of 750-800 kcal/m^3. If this gas is immediately used in a gas-turbine installation, the somewhat reduced calorific value does not affect the efficiency of the installation or the conditions of combustion of the gas since it is at a temperature above 1 000 °C. The CO_2 content of the gas for various rates of delivery of pulverised fuel is plotted in Figure 7 and the output of ash and slag as a function of the pulverised fuel delivery is plotted in Figure 8.

The experiments demonstrate that considerable quantities of coal dust, even of such inactive coals as anthracite, can be gasified under pressure at very high rates in a layer of lump fuel. The tests were made in a gas generator that was not specially adapted for the combined process and there was not pre-heating of the blast, yet the amount of anthracite dust gasified was up to 50% of the lump fuel consumption for the same gas purity and with stable slag removal. The greatest pulverised fuel consumption was of the order of 250 kg/hr,

High-Intensity Gasification of Coal Dust in a Layer of Lump Fuel Under Pressure

which was 2 1/2 times the consumption of solid fuel though this gave a somewhat high carry-over of dust. However, because the particles carried over were coarse, they were easily trapped by a cyclone and could be returned to the furnace to improve the efficiency of the process.
The tests revealed no appreciable connection between the fractional composition of the coal and the characteristics of the process. Evidently, coal dust can be intensively gasified in a thin layer of lump fuel with only a slight decrease in the calorific value of the gas as compared with that obtained without delivery of pulverised fuel. Alterations in the pressure from 3.5 - 7 atm had practically no influence on the gas composition but somewhat improved the burning of the dust. This new method of combined gasification of lump and pulverised fuel is promising. In designing gas generators for this process, the fuel layer should be fairly deep, to improve the conditions of gas filtration and to extend the reducing zone as far as possible. It may also be useful to arrange for

SOV/96-58-5-5/27

High-intensity Gasification of Coal Dust in a Layer of Lump Fuel Under Pressure

pulsating or alternating delivery of dust. The results of the work can find immediate practical application when solid fuel is used, not only in gas-turbine installations but also in certain steam boilers.
There 8 figures, 2 tables and 2 Soviet references.

ASSOCIATION: VTI

Card 8/8

1. Gas generators--Design 2. Gas turbines--Equipment 3. Fuels --Combustion 4. Fuels--Control systems 5. Coal--Applications

KOLODTSEV, Kh.I., kand.fiz.-matem.nauk; BABIY, V.I., kand.tekhn.nauk
KUSTOVSKIY, S.P., inzh.

VTI gas generator for gas-turbine systems. Teploenergetika 8 no.4:44-48 Ap '61. (MIRA 14:8)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Gas turbines)

KOLODTSEV, Kh.I., kand.fiziko-matematicheskikh nauk; BABIY, V.I., kand.-tekhn.nauk

Testing the gas generator under conditions of priming return and maximum loads. Teploenergetika 9 no.3:21-25 Mr '62. (MIRA 15:2)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Gas producers) (Gas turbines)

KOLODUB, B.K.

Technical progress in open-pit mines of the Irtyshugol' Trust. Ugol' 40 no.11:27-29 '65. (MIRA 18:11)

1. Nachal'nik tekhnicheskogo otdela tresta Irtyshugol'.

KOLODUB, G.K.; SEMENOV, B.V.

Ways to increase labor productivity in the "Kirov" Mine no.3 of Karagandaugol' Combine. Ugol' 35 no.7:20-23 Jl '60. (MIRA 13:7)

1. Nachal'nik Shakhty No.3 im. Kirova kombinata Karagandaugol' (for Kolodub). 2. Nachal'nik planovogo otdela Shakhty No.3 im.Kirova kombinata Karagandaugol' (for Semenov).
(Karaganda Basin--Coal mines and mining--Labor productivity)

KOLODTSEV, Kh.I., kand.fiziko-matematicheskikh nauk; SEREBRYAKOVA, A.G., inzh.

Reduction of CO_2 with carbon at high temperatures. Teploenergetika 8 no.1:34-37 Ja '61. (MIRA 14:4)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Carbon dioxide) (Carbon)

SOLDATOV, Dmitriy Nikanorovich; KOLODYAZHNA, G.I. [Kolodiazhna, H.I.], red.; LIMANOVA, M.I., tekhn.red.

[Brigades of communist labor] Bryhady komunistychnoi pratsi. Kharkiv, Kharkivs'ke knyzhkove vyd-vo, 1959. 22 p. (MIRA 13:4)

1. Sekretar komitetu komsomolu zavodu "Serp i molot" (for Soldatov).
(Efficiency, Industrial)

KOLODYAZHNAYA, A. A. Cand. Geolog-Meneral Sci.

Dissertation: "Hydrogeology of the North-Ural Bauxite Deposits." Moscow Geological Prospecting Inst. imeni S. Ordzhonikidze. 4 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

KOLODYAZHNAYA, A.A.

Glaciation of the Sosva-Vagran watershed on the eastern slopes of the Urals. Trudy Lab.gidrogeol.probl. 12:114-119 '55. (MLRA 9:6)
(Ural Mountains--Glacial epoch)

KOLODYAZHNAYA, A.A.

Effect of sulfide on karst formation. Trudy Lab.gidrogeol.probl. 16:327-335 '58. (MIRA 12:2)

1. Laboratoriya gidrogeologicheskikh problem imeni F.P. Savarenskogo AN SSSR. (Ural Mountains--Karst) (Sulfides)

KOLODYAZHNAYA, A.A.; KROL', Ch.Ya.

Results of experimental studies on the solubility of limestones as influenced by sulfide oxidation. Trudy Lab.gidrogeol. probl. 20:167-173 '58. (MIRA 12:5)
(Limestone) (Sulfuric acid)
(Karst)

KOLODYAZHNAYA, A.A.

Atmospheric precipitation as a source of water-soluble salts deposited on dry land. Trudy Lab. gidrogeol. probl. 36:58-64 '61. (MIRA 14:11)

(Precipitation (Meteorology)--Composition)

KOLODYAZHNAYA, A.A.; SUNTSOV, M.A ; OGIL'VI, A.A.; KHELEVSKOY, V.K.; KAMENSKIY, G.N., otv.red. [deceased] FILIPPOVA, B.S., red.izd-va; POLYAKOVA, T.V., tekhn.red.; LAUT, V.G., tekhn.red.

[Formation of underground waters in the region of bauxite deposits in the Northern Urals] Formirovanie podzemnykh vod raiona Severoural'skikh boksitovykh mestorozhdenii. Moskva, Izd-vo Akad.nauk SSSR, 1961. 143 p. (Akademiia nauk SSSR. Laboratoriia gidrogeologicheskikh problem. Trudy, vol.31) (MIRA 15:1)

1. Chlen-korrespondent AN SSSR (for Kamenskiy).
(Ural Mountains—Water, Underground)
(Ural Mountains—Bauxite)

KOLODYAZHNAYA, A.A.

Chemical composition of atmospheric precipitation and its possible effect on karst processes in the Dzerzhinsk region. Trudy Lab. gidrogeol.probl. 47:58-63 '62. (MIRA 15:6)
(Dzerzhinsk region (Gorkiy Province)--Karst)
(Dzerzhinsk region (Gorkiy Province)--Precipitation (Metrology))

KOLODYAZHNAYA, A.A.

Formation of aggressive components in underground waters of the Northern Ural karst region. Trudy Lab.gidrogeol.probl. 42: 18-24 '62. (MIRA 15:8)
(Ural Mountains--Water, Undergound--Composition)
(Ural Mountains--Karst)

KOLODYAZHNAYA, A.A.; BOGOMOLOV, G.V., doktor geol.-min. nauk, otv. red.; STOLYAROV, A.G., red. izd-va; SHOKHET, B.S., red.izd-va; SIMKINA, G.S., tekhn. red.

[Regime of the chemical composition of atmospheric precipitation and its metamorphosis in the zone of aeration] Rezhim khimicheskogo sostava atmosfernykh osadkov i ikh metamorfizatsiia v zone aeratsii. Moskva, Izd-vo AN SSSR 1963. 165 p. (MIRA 16:12)
(Precipitation (Meteorology))

KOLODYAZHNAYA, Alla Aleksandrovna

[Karst of the flysch formation in the southwestern slope of the Caucasus] Karst flishevoi formatsii iugo-zapadnogo sklona Kavkaza. Moskva, Nauka, 1965. 72 p.
(MIRA 18:4)

KOLODYAZHNAYA, V.V.

Some data on the origin of CO_2 limestone in massifs forming karst. Trudy Lab. gidrogeol. probl. 30:57-62 '60. (MIRA 14:4)
(Carbon dioxide) (Limestone) (Karst)

ACC NR: AP7005109 SOURCE CODE: UR/0079/66/036/009/1693/1702

KOLODYAZHNYY, Yu. V., MARCHENKO, V. N., OSIPOV, O. A., KOGAN, M. G., Rostov-on-Don State University (Rostovskiy-na-Donu gosudarstvonnyy universitet)

"Investigation of the Interaction Between Tetra-n.-Butoxytitanium and the Tetrachlorides of Tin and Silicon"

Moscow, Zhurnal Obshchey Khimii, Vol 36, No 9, 66, pp 1693-1702

Abstract: With the aid of various physicochemical techniques (dielectric losses, cryoscopy, electric conductivity, etc.) it is shown that tetrabutoxytitanium $Ti(OBu)_4$ forms conducting complex compounds not only with stannic tetrachloride but also with such a weak electron acceptor such as silicon tetrachloride. It was shown that the interaction between the tetrachlorides of tin and silicon and tetra-n.butoxytitanium in dilute benzene solutions leads to the formation of the following complexes: $SnCl_4 \cdot 4Ti(OBu)_4$, $SnCl_4 \cdot 2Ti(OBu)_4$, $SiCl_4 \cdot 4Ti(OBu)_4$, $SiCl_4 \cdot Ti(OBu)_4$. The association of complexes 1:2 composition was established and this is attributed to not only donor-acceptor interaction between molecules of tetrabutoxytitanium but also, and to a large degree, to the interaction between the butoxy-group hydrocarbon radicals; the gradual decomposition of such associated complexes accounts for the decrease in their electric conductivity with time. Orig. art. has: 11 figures, 2 formulas and 8 tables. [JPRS: 38,970]

TOPIC TAGS: organotitanium compound, organotin compound, organosilicon compound
SUB CODE: 07 / SUBM DATE: 06Jul65 / ORIG REF: 013 / OTH REF: 001

Card 1/1 UDC: 547.1'13 + 546.81 + 546.28

FADEYEV, Sergey Pavlovich [deceased]; ZYBIN, V.P., doktor tekhn. nauk, retsenzent; POKROVSKIY, A.M., kand. tekhn. nauk, dots., nauchn. red.; KOLODYAZHNAYA, Zh.A., red.

[Design of machine parts; collection of problems] Raschety detalei mashin; sbornik zadach. Moskva, Vysshaia shkola, 1964. 180 p. (MIRA 18:3)

1. Zaveduyushchiy kafedroy "Detali mashin PTU" Vsesoyuznogo zaochnogo instituta tekstil'noy i legkoy promyshlennosti (for Zybin).

IVANOV, Aleksandr Matveyevich; MARTYNETS, Dmitriy Vasil'yevich; MARTEM'YANOV, Vladimir Ivanovich; ALGAZINOV, Konstantin Yakovlevich; LENNOV, V.G., prof., rektor, retsenzent; KOLODYAZHNAYA, Zh.A., red.

[Use of plastics in structural elements and parts of buildings] Primenenie plastmass v stroitel'nykh konstruktsiiakh i chastiakh zdanii. Moskva, Vysshaia shkola, 1965. 290 p. (MIRA 18:12)

1. Gor'kovskiy inzhenerno-stroitel'nyy institut (for Lennov).

NAYFEL'D, Lev Romanovich; BURLAKOV, N.Ya., inzh., retsenzent; KOLODYAZHNAYA, Zh.A., red.

[Hydraulic engineering in city planning] Gidrotekhnika v gradostroitel'stve. Moskva, Vysshaia shkola, 1965. 250 p. (MIRA 18:6)

SIROTKIN, Vasiliy Pavlovich, prof., doktor tekhn. nauk; DVORYASHIN, V.I., prof., doktor tekhn. nauk, retsenzent; SAMGIN, A.N., prof., retsenzent; KOLODYAZHNAYA, Zh.A., red.

[Water intakes; models, diagrams, and hydraulic calculations] Vodopriemnye sooruzheniia; tipy, skhemy, gidravlicheskie raschety. Moskva, Vysshaia shkola, 1965. 79 p. (MIRA 18:6)

OZERNTSVEY, L.B.; CHESTOPEROV, S.V., prof., doktor tekhn. nauk, red.; KOLOSKAZHNEVA, Zh.A., red.

[Asphalt concrete of activated mineral materials] Asfal'tovyi beton iz aktivizirovannykh mineral'nykh materialov. Moskva, Vysshaia shkola, 1964. 39 p. (MIRA 18:5)

L 45961-66 EWP(m)/EWT(1)

ACC NR: AT6025828 (N) SOURCE CODE: UR/3207/65/000/001/0008/0014

AUTHOR: Gontkevich, V. S.; Kolodyazhnyy, A. V.

ORG: Institute of Mechanics, AN UkrSSR, Khar'kov (Institut mekhaniki AN UkrSSR)

TITLE: Investigation of Strouhal numbers for solids of various shape in a plane flow

SOURCE: Gidroaeromekhanika (Hydroaeromechanics), no. 1, Kharkov, Izd-vo Khar'kovskogo univ., 1965, 8-14

TOPIC TAGS: plane flow, flow analysis, dimension analysis

ABSTRACT: The Strouhal numbers of obstacles are experimentally determined at the Khar'kov Department of the Institute of Mechanics AN UkrSSR. A small shock tube was used with a cross sectional working area of 48 cm^2. The working chamber was a channel 75 mm high with parallel walls separated by a distance of 60 mm. Provision was made for continuous variation of velocity from 1 to 16 m/sec. The experimental specimens were cylinders of various profile, plates with various ratios of thickness to length and symmetric profiles. All specimens were approximately 75 mm long. The specimens were held in the working chamber by elastic leaf springs. The natural frequencies of the system were changed by using springs of various rigidity. The rigidity of the system could be varied by adjustment of tension screws. Strain gauges were fastened

Card 1/2

Card 2/2 hs

GONTKEVICH, V.S.; KOLODYAZHNYY, A.V.

Natural vibrations of annular plates. Trudy Lab.gidr.mash.AN USSR no.11:13-19 '64. (MIRA 17:10)

KOLODYAZHNYY, A.Ye., inzh.-kapitan 2-go ranga

Measuring the negative values of the horizon's inclination with the N-5 inclinometer. Mor. sbor. 48 no.8:54-56 Ag '65. (MIRA 18:8)